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FORAGING

BIG HISTORY PROJECT

FORAGING

LIFE AS A
HUNTER-GATHERER

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For 95 percent of their time on Earth, humans have sustained themselves by foraging, that is, by hunting and gathering food from their natural environment.



The evolution of foraging

Living as we do with mass-produced food, markets, and restaurants in every town, and giant supermarket complexes that are often just down the road, it takes some imagination to think of finding food every day in the natural environment. Yet that is just what humans (*Homo sapiens*) have done for most of their time on Earth — from their appearance about 200,000 years ago until about 11,000 years ago when they began to develop agriculture. Before *Homo sapiens* evolved, our hominine ancestors foraged for millions of years.

Foraging means relying on food provided by nature through the gathering of plants and small animals, birds, and insects; scavenging animals killed by other predators; and hunting. The word *foraging* can be used interchangeably with “hunting and gathering.”

Humans are not the only creatures who forage; many animals do too. What is different about human foraging? Answers may vary, but the common idea would be that humans, by means of our ability to communicate verbally, accumulated knowledge, passed it on to younger generations, and worked together cooperatively. These skills enabled humans to gradually refine their foraging methods, further distinguishing us from some of our competitors in the animal kingdom.

In fact, one could say that foraging made us human. As fruit trees in the rain forest became less abundant in the cooling, drying climate, the hominines who survived had to find other food sources. As they did, many traits evolved: walking on two feet (bipedalism), loss of most hair, smaller intestines, larger brains, and better communication. These are essentially the hallmarks of being human.

One of the most significant steps that hominines ever took was to learn to control fire. They probably did this by tending fires started by lightning. No one knows exactly when this occurred, but hominines may have been using fire to cook meat and roots more than a million years ago. The systematic, controlled use of fire may have begun before *Homo sapiens* or it may be one of the species' distinguishing features.

Cooked food provided more nutrition, required less chewing, and allowed intestines to shorten, all of which contributed to brain development. The social scene of eating together around a fire may have promoted language development, further contributing to awareness and collective learning. These changes in food consumption were an important step in increasing the flow of energy through human systems.

Humans gradually developed their skill in hunting. At first hominines probably scavenged meat that had been killed by other animals. They could drag a carcass to a safe place and use their stone tools to butcher the flesh and crack the bones for marrow. As they developed better weapons and learned to hunt together, they were able to take down larger animals and to devise innovative ways for defeating multiple prey. Herding groups of animals over a cliff and retrieving the carcasses later is one example of this.

The economics of foraging

Climate and environment determined what life was like for any specific group of humans, but some generalizations apply to any group of foragers. They must have possessed a detailed knowledge of their environment. They must have had a large territory in which to forage, larger if they lived in harsh environmental conditions that provided fewer food resources and smaller if they had abundance. Most foragers lived by moving frequently and making temporary encampments. They might have repeated seasonal movements based on animal migrations or the ripening of different plant food sources. Foragers usually lived in small groups of 15 to 30, and split up further when food became scarce or when conflicts arose. Populations grew extremely slowly, if at all. Mothers' milk provided the only sustenance for infants and nursing extended for three to four years, often preventing a new pregnancy. In any case, mothers could not carry more than one infant at a time. In these close-knit groups, foragers usually shared the food they accumulated, especially prizes of fresh meat. Apparently, foraging societies were the most egalitarian in human history.

The Bushmen of southern Africa

Until relatively recently, five different groups of people had been living as foragers in the same place for 30,000 years. And it's a semidesert — the Kalahari Desert of Botswana, Namibia, and South Africa. The groups each have a name, but collectively they are known as San, Bushmen, or the First People. Most call themselves Bushmen when referring to themselves collectively.

How did the Bushmen survive as foragers in such harsh environmental conditions for so many years? Their survival has given the human community a valuable example of the skills of foragers in extremely challenging surroundings.





The Bushmen moved every day during the rainy season in search of budding edible greens. They constructed simple shelters against the rain at night. During the dry season, however, they built more stable huts of branches and grass around water sources. Finding water was their essential activity. Sometimes they had to dig deep holes wherever the sand was damp and sip up water through hollow grass straws, often storing it in ostrich eggshells, which held about five cups, more than a day's supply.

The tools of the Bushmen were simple. Men used a bow with poison-tipped arrows and spears for hunting deer, antelope, kudu (another species of antelope), and buffalo. For gathering, the women used a blanket, a sling made of hide, a cloak to carry wood and food, smaller carrying bags, and a digging stick about three feet long and about an inch in diameter. Nuts and roots provided the staple foods. Women also collected fruit, berries, bush onions, and ostrich eggs. Insects — grasshoppers, beetles, caterpillars, moths, butterflies, and termites — supplied a portion of the Bushmen's protein. Hunting contributed about 20 percent of the total diet, while gathering provided 80 percent.

The Bushmen spent a large portion of their time in "leisure" activities — conversation, joking, singing, and dancing. Decisions were reached by consensus, with women having relative equality with men. Chiefs were designated, but they had little additional power.

Studies of the Bushmen began in the 1950s when they still lived in the traditional way. By the 1990s most had been forced to adopt subsistence farming as African governments had created game preserves out of some of their former hunting territories.

Debates about foraging

People who study foragers are archaeologists and anthropologists. Archaeologists examine human societies through material, cultural, and environmental data left behind. Their work encompasses human societies from the development of the first tools up to recent decades. Anthropologists study contemporary societies that still live much like preagricultural ones. Both

types of study are challenging and open to varied interpretations. Conclusions about ancient foragers reached from studying modern foragers are especially tentative, since modern foragers cannot escape completely the world around them. Modern foraging communities often use contemporary tools and partially rely on fairly recent agricultural and technological advances. Their lands have also been greatly limited by development and the overall increase in global population.

Traditionally, archaeologists and anthropologists have thought that men did the hunting in foraging societies, while women did the gathering. However, recent studies have challenged this view. People studying apes often point out that primate females can provide for themselves and their offspring, without male assistance. Among many current foraging societies, men and women are flexible about who hunts small birds and animals, and, in some cultures, the hunting and gathering roles are exchanged. The current view holds that past foragers had flexible gender roles, depending on individual skills, knowledge, and the local environment.

Another ongoing debate among experts concerns the standards of physical and mental health among foragers. Traditionally, foragers were viewed as backward “cavemen” with short, miserable lives, barely eking out an existence. In the 1960s, fieldwork done among surviving foragers (the Bushmen in Botswana, the Aborigines in Australia, and the Yanomami in the Brazilian rain forest) revealed that foragers enjoy good nutrition obtained in a few hours a day, leaving plenty of time for socializing and grooming. By the 1980s this view was challenged, and no agreement has yet been reached.

A third debate concerns how much human foragers have affected the environment in which they lived. For a long time it was assumed that humans had little effect on the rest of nature until they developed agriculture.

Since the 1960s, scientists have questioned this assumption. They have pointed to two indications that foragers did make a significant impact. For one thing, archaeologists have found evidence that foragers set fire to large areas of land. Presumably they did this to drive animals out for killing and to promote the growth of fresh plants that would attract animals and would provide food for gathering. Australian Aboriginal use of this practice was



given the name “firestick farming.” These fires turned scrubland into grassland and suppressed some species, altering the environment.

In addition, whenever humans migrated into new parts of the world, a wave of extinctions of other large animals occurred. In North and South America about 75 percent of the animals weighing more than 100 pounds went extinct within a couple of thousand years after humans arrived. These animals included mastodons, camels, horses, and saber-toothed tigers. In Australia, where humans are thought to have arrived about 40–60,000 years ago, similar extinctions occurred roughly 30,000 years ago. The rate of extinction was about 85 percent and included giant kangaroos and marsupial lions. In Eurasia the extinctions occurred more gradually and included mammoths, woolly rhinoceroses, and giant elk. While debate continues, it may be that a combination of changing climate, human hunting, and other changes brought about by humans may have done these large animals in.

Sources

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Image credits

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A Bushman starts a fire
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Two Bushmen hunters rest
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